WHAT IS CLAIMED IS:

1. A method for transferring a protein to a cell comprising:

coating the surface of said cell with a first protein, wherein said first protein is a lipidated protein; and

contacting said cell with a second protein, wherein said second protein is a fusion protein comprised of a first domain having affinity for said first protein and a second domain of a peptide, protein, or derivative or fragment thereof, having *trans* signaling and/or adhesion function.

2. The method of Claim 1, wherein either or both of said first domain and said second domain is an extracellular domain.

3. The method of Claim 1, wherein said second domain has immunoregulatory function.

4. The method of Claim 1, wherein the amount of protein transferred to said cell is determined by the amount of second protein used in said contacting step.

5. The method of Claim 1, wherein said first protein is lipidated with a C12-C22 lipid.

6. The method of Claim 5, wherein said lipid is C16.

7. The method of Claim 1, wherein said first protein is selected from the group consisting of lipidated protein A and lipidated protein G.

8. The method of Claim 7, wherein said first protein is palmitated protein A.

9. The method of Claim 1, wherein said first domain is attached at the amino terminus of said second protein.

10. The method of Claim 1, wherein said first domain is attached at the carboxyl terminus of said second protein.

11. The method of Claim 1, wherein said second domain encodes a portion of a type I membrane protein.

12. The method of Claim 1, wherein said second domain encodes a portion of a type II membrane protein.

13. The method of Claim 1, wherein said second domain encodes a costimulator.

14. The method of Claim 1, wherein said second domain encodes a coinhibitor.

15. The method of Claim 13, wherein said costimulator is selected from the group consisting of B7-1, B7-2, ICAM-1, ICAM-2, ICAM-3, CD48, LFA-3, 4-1BB ligand, CD30 ligand, CD40 ligand, and heat stable antigen.

16. The method of Claim 15, wherein said second protein is B7-1-Fcγ_1.

17. The method of Claim 14, wherein said coinhibitor is selected from the group consisting of CD8, Fas ligand, and a single-chain Fv derivative of immunoglobulin.

18. The method of Claim 1, wherein said coated cell is contacted with more than one type of second protein, and each type of second protein is different.

19. The method of Claim 18, wherein said second proteins are introduced in a predetermined ratio.

20. The method of Claim 1, wherein said coating step and said contacting step take place *in vivo*.

21. The method of Claim 1, wherein said coating step and said contacting step take place *in vitro*.

22. The method of Claim 18, further comprising the step of injecting said contacted cells into a patient.

23. A cell produced according to the method of Claim 1.

24. A method for determining costimulator activation thresholds in T-cells comprising:

a) coating the surface of a plurality of cells with a first protein, wherein said first protein is a lipidated protein;

b) contacting said cells with a second protein, wherein said second protein is a fusion protein comprised of a first domain having affinity for said first protein and a second domain of a costimulator;

c) mixing the contacted cells of step b with T-cells; and

d) determining the level of T-cell proliferation.

25. The method of Claim 21, further comprising the step of e) determining cytokine secretion levels.

26. A method for treating a patient for an illness comprising:

coating the surface of a plurality of cells with a first protein, wherein said first protein is a lipidated protein; and

contacting said plurality of cells with a second protein, wherein said second protein is a fusion protein comprised of a first domain having affinity for said first protein and a second domain of a peptide, protein, or derivative or fragment thereof, having a *trans* signaling or adhesion function specific for the treatment of the illness; and

administering an effective amount of said coated cells to a patient.

27. The method of Claim 26, wherein said illness is selected from the group consisting of cancer, autoimmune diseases, and alloimmune diseases.

28. The method of Claim 27, wherein said illness is cancer and said administration is by injection into a tumor.

29. The method of Claim 26, wherein said cells are autologous.

30. The method of Claim 26, wherein said cells are allogeneic.

31. The method of Claim 30, wherein said cells are an allogeneic cell line.

32. A method for treating a patient for an illness comprising:

transferring protein to a plurality of cells by administering to said patient a first protein, which is a lipidated protein; and a second protein, which is a fusion protein comprised of a first domain having affinity for said first protein and a second domain of a peptide, protein, or derivative or fragment thereof, having a *trans* signaling or adhesion function specific for the treatment of the illness; wherein an effective amount of cells within said patient have fusion protein transferred thereto.

33. The method of Claim 32, wherein said first protein and said second protein are administered sequentially.

34. The method of Claim 32 wherein said first protein and said second protein are administered concurrently.

35. The method of Claim 32, wherein said administration is by local injection.

36. The method of Claim 32, wherein said administration is by systemic injection.

37. A cancer vaccine comprising:

cells produced according to the method of Claim 1 in a suitable carrier.

38. The cancer vaccine of Claim 37, wherein said first protein is selected from the group consisting of lipidated protein A and lipidated protein G.

39. The cancer vaccine of Claim 37, wherein said first protein is palmitated protein A.

40. The cancer vaccine of Claim 37, wherein said first domain is attached at the amino terminus of said second protein.

41. The cancer vaccine of Claim 37, wherein said first domain is attached at the carboxyl terminus of said second protein.

42. The cancer vaccine of Claim 37, wherein said second domain encodes a type I membrane protein.

43. The cancer vaccine of Claim 37, wherein said second domain encodes a type II membrane protein.

44. The cancer vaccine of Claim 37, wherein said second domain encodes a costimulator.

45. The cancer vaccine of Claim 37, wherein said second domain encodes a coinhibitor.

46. The cancer vaccine of Claim 44, wherein said costimulator is selected from the group consisting of B7-1, B7-2, ICAM-1, ICAM-2, ICAM-3, CD48, LFA-3, 4-1BB ligand, CD30 ligand, CD40 ligand, and heat stable antigen.

47. The cancer vaccine of Claim 46, wherein said second protein is B7-1·Fcγ_1.

48. The cancer vaccine of Claim 45, wherein said coinhibitor is selected from the group consisting of CD8, Fas ligand and a single chain Fv derivative of immunoglobulin.

49. The cancer vaccine of Claim 37, wherein said vaccine comprises more than one second protein.

50. The cancer vaccine of Claim 37, wherein said vaccine comprises more than one cell type, and each cell type has a different fusion protein transferred thereto.